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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,302	12/31/2003	Thomas J. Drury	X-9449	8423

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EXAMINER

CHANG, VICTOR S

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/748,302

Applicant(s)

DRURY, THOMAS J.

Examiner

Victor S. Chang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/31/2003.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

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DETAILED ACTION

Introduction

1. Applicant's preliminary amendments, dated 12/31/2003, to the specification and claims 1, 6, 7, 10, 12, 13, 16 and 18, and new claims 20-22 have been entered. It is noted that the Serial No. "09/838,138" listed on the first page of the preliminary amendment is incorrect.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 10-15 and 18-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In amended claim 10, line 3 and claim 13, line 2, the newly added phrases "gaseous formed" and "with gas formed pores", respectively, appear to be new matter. Applicant has not provided any express or inherent support in the specification.

In amended claim 18, line 5 and newly added claim 20, lines 4-5, the phrase "said pores forming substantially empty cavities" appears to be new matter. Applicant has not provided any express or inherent support in the specification.

Applicant is requested to provide clear supports for aforementioned elements in the next reply, and unsupported new matter must be cancelled.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 18-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In addition to being possible new matter, the Examiner notes that, in claims 18 and 20, the phrase "said pores forming substantially empty cavities" also appears to be vague and indefinite, as it is unclear to the Examiner the scope of "empty cavities". Does it mean there is vacuum inside the cavities, or it is not filled with liquid or solid material? Clarification is requested.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bahten (US 6076662) in view of Cercone et al. (US 6027573) and Rosenblatt (US 4098728).

Bahten's invention is directed to a sponge or porous polymeric product such as an ultra clean "scrubbing" brush for the manufacturing of integrated circuits (column 1, lines 23-27). The cleaning device comprises a polyvinyl acetal porous elastic material having an average pore size 10 to 200 microns (column 4, lines 11-19), and may be shaped as a roller which may have a smooth surface, or may be shaped as a pad or a disk (column 3, lines 44-53). The roller may have an outer diameter of about 60 mm and an inner diameter of about 32 mm (column 11, lines 42-47).

For claims 1, 3, 4-6, 8 and 22, Bahten is silent about the uniformity and size distribution of the pores. However, it is noted that Cercone's invention is directed to a cleaning sponge device. The sponge is made from a polyvinyl acetal material in which the pores are formed by gas to provide an open pore structure, as taught by Rosenblatt (column 2, line 41 to column 3 line 14). Further, it is known that Rosenblatt's polyvinyl acetal porous foam has a controlled uniform pore size and uniform pore distribution, as well as being a smooth, lint free, non-abrasive, compressible and flexible sponge (abstract and column 4, lines 7-9). As such, in the absence of unexpected results, it would have been obvious to one of ordinary skill in the art to incorporate a suitable porous polyvinyl acetal material of Rosenblatt with Bahten's ultra clean device, as taught by Cercone. It should be noted that the selection of a known material based on

its suitability for its intended use supported a *prima facie* obviousness determination.

See MPEP § 2144.07.

For claim 2, Bahten expressly shows in Fig. 1A) that one embodiment of the brush roller has a smooth outer surface (column 3, lines 46-49).

For claims 7 and 9, while Bahten is silent about the “bubble point pressure” or “mean flow pore pressure” of the porous polyvinyl acetal material, it is noted Bahten does teach the same subject matter (a porous polyvinyl acetal) and for the same application (ultra clean “scrubbing” brush for integrated circuits or semiconductors), it is the Examiner’s position that, in the absence of evidence to the contrary, a suitable “bubble point pressure” or “mean flow pore pressure” is either anticipated by Bahten, or obviously provided by practicing the invention of the prior art. It should be noted that where the claimed and prior art products are shown to be identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established. See MPEP § 2112.01.

For claims 10-18, since they claim essentially the same scope of limitations as claims 1-9, they are also rejected for the reasons as set forth above.

For claims 19 and 20, the Examiner notes that since Bahten does teach the same subject matter of instant invention, as set forth above, in the absence of evidence to the contrary, a suitable “cleaning solvent flow rate through the roller” or “dry flow rate” is also either anticipated by Bahten, or obviously provided by practicing the invention of the prior art.

For claim 21, although Bahten is silent about the residual formaldehyde, Bahten does teach that the devices are subjected to washer/extraction step to remove impurities, and the devices are substantially free from impurities (column 7, line 65 to column 8, line 4). As such, in the absence of unexpected results, it would have been obvious to one ordinary skill in the art to remove the residual formaldehyde to less than 0.1 ppm, motivated by the desire to minimize the impurities in the cleaning devices.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S. Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Victor S Chang
Examiner
Art Unit 1771

7/19/2005